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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,687	10/30/2001	John B. Taylor	396421	5708
7590 Kenneth D. Goetz Lathrop & Gage LC Suite 2800 2345 Grand Boulevard Kansas City, MO 64108		01/12/2007	EXAMINER CHOI, FRANK I	
			ART UNIT 1616	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/12/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/017,687

Applicant(s)

TAYLOR, JOHN B.

Examiner

Frank I. Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 55-102 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 55-102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20050811.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 6/2/2006 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 66, 67 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for controlling, does not reasonably provide enablement for preventing. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The nature of the invention:

The invention is directed to an aqueous solution for preventing and controlling fungicidal and bacterial diseases in plant with the combination of phosphates and chelates.

The state of the prior art and the predictability or lack thereof in the art:

The prior art of record does not appear to show that the same prevents said diseases. As such, it appears that predictability in the art is low.

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The amount of direction or guidance present and the presence or absence of working examples:

The Specification does not appear to give direction as to how the aqueous solution would be used to prevent said diseases and there are no working examples which show that said solution is effective in preventing said diseases.

The breadth of the claims and the quantity of experimentation needed:

The breadth of the claim is broad as prevention means that the plant will never again have the fungal or bacterial disease. Further, one of ordinary skill in the art would be required to do undue experimentation in order to use the invention commensurate in scope with the claims, i.e. in determining how to apply the solution to prevent said diseases and determining which diseases are susceptible to prevention.

The Examiner has duly considered the Applicant's arguments but deems them unpersuasive for the reasons set forth in the prior Office Actions.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 72 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 72 refers to the aqueous solution of claim 69, but claim 69 is a method not a composition.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 55-102 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 5,736,164, Claims 1-5 of U.S. Patent No. 5,800,837 or Claims 1-49 of U.S. Patent No. 6,338,860, each in view of Ducret et al. (U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop.

U.S. 5,736,164 claims a method of controlling fungal disease in plants comprising applying potassium phosphates and potassium phosphonates (Claims 1-8).

Ducret et al. (U.S. Pat. 4,139,616) teach that phosphonate salts are effective fungicides (Column 1).

Fenn et al. (1984) teaches that phosphonate and phosphorous acid are effective against *Phytophthora* (See entire document).

Reuveni et al. (Plant Pathology 1995) teaches the potassium phosphates, optionally with KOH, are effective fungicides and fertilizers (See entire document).

Scher teaches FeEDDHA is effective against *Fusarium* wilt (Column 9, lines 40-61).

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Supa Crop (1990) teaches that a composition containing phosphates, phosphate and chelated metals of iron, manganese, zinc, copper provides protection against Phytophthora and Downy Mildew.

The difference between the claims of the U.S. Pat. Nos. 5,736,164, 5,800,837 and 6,338,860 and the claimed invention is that the said patent does not claim the combination of heavy metal chelate and phosphonate and phosphate. However, the prior art amply suggests the same as it is known in the art to combine phosphonates and phosphates, and to combine the same with metal chelates.. As such it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the claims said patent with the expectation that the combination would exhibit increased effectiveness.

Examiner has duly considered Applicant's arguments but deems them unpersuasive for the reasons set forth in the prior Office Actions.

The Examiner has considered the Rebuttal of Robert Addair, however, the Examiner is not persuaded by the arguments therein. The prior art disclose the use of phosphorous salts and chelated metals in the treatment of agricultural plants as indicated above. The prior art as indicated above also provide motivation to combine the same as indicated above.

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 205 USPQ 1069, 1072 (CCPA 1980) (citations omitted) (Claims to a process of preparing a spray-dried detergent by mixing together two conventional spray-dried detergents were held to be prima facie obvious.). See also In re

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Crockett, 126 USPQ 186 (CCPA 1960) (Claims directed to a method and material for treating cast iron using a mixture comprising calcium carbide and magnesium oxide were held unpatentable over prior art disclosures that the aforementioned components individually promote the formation of a nodular structure in cast iron.); and Ex parte Quadranti, 25 USPQ2d 1071 (Bd. Pat. App. & Inter. 1992) (mixture of two known herbicides held prima facie obvious).

The prior art teaches the combination of phosphorus compounds and metal chelates and further teaches that each alone are effective in treating fungal infections in plants. Further, one of ordinary skill in the art would be motivated to combine both fertilizer and antimicrobial in a single formulation in terms of convenience over having to perform multiple applications.

Therefore, the claimed invention, as a whole, would have been an obvious modification of the claims of said patent to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Claims 55-102 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,2 of U.S. Patent No. 6,139,879 in view of Ducret et al. (U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop (1990).

U.S. 6,139,879 claims a method of controlling fungal disease in plants comprising applying heavy metal chelates (Claims 1,2).

Ducret et al. (U.S. Pat. 4,139,616) teach that phosphonate salts are effective fungicides (Column 1).

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Fenn et al. (1984) teaches that phosphonate and phosphorous acid are effective against Phytophthora (See entire document).

Reuveni et al. (Plant Pathology 1995) teaches that potassium phosphates, optionally with KOH, are effective fungicides and fertilizers (See entire document).

Scher teaches FeEDDHA is effective against Fusarium wilt (Column 9, lines 40-61).

Supa Crop (1990) teaches that a composition containing phosphates, phosphate and chelated metals of iron, manganese, zinc, copper provides protection against Phytophthora and Downy Mildew.

The difference between the claims of U.S. Pat. 5,736,164 and the claimed invention is that the said patent does not claim the combination of heavy metal chelate and phosphonate and phosphate. However, the prior art amply suggests the same as it is known in the art to combine phosphates, phosphates and metal chelates. As such it would have been well within the skill of one of ordinary skill in the art would have been motivated to modify the claims said patent with the expectation that the combination would exhibit increased effectiveness.

Examiner has duly considered Applicant's arguments but deems them unpersuasive for the same reasons as above. The risk of possible phytotoxicity is not sufficient to overcome the motivation to combine the chelates and phosphorous salts. There is no discrepancy the argument is the same in each case. The prior art in combination with the claims of the individual patents would motivate one of ordinary skill in the art to combine the metal chelates and phosphorous salts.

Therefore, the claimed invention, as a whole, would have been an obvious modification of the claims of said patent to one of ordinary skill in the art at the time the invention was made,

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because every element of the invention has been collectively taught by the combined teachings of the references.

Claim Rejections - 35 USC § 103

Examiner notes that the rejections herein are not intended to and do not apply to subject matter which was found to be allowable over the prior art in Patent Nos. 6,139,879, 6,338,860, 5,997,910, 5,800,837 and 5,736,164.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 55-102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horriere et al. in view of in view of Ducret et al. (U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop (1990).

Horriere et al. teaches that phosphonates in combination with other fungicides, such as maneb and mancozeb show increased effectiveness (Column 2).

Ducret et al. (U.S. Pat. 4,139,616), Fenn et al. (1984), Reuveni et al. (Plant Pathology 1995), Scher (U.S. Pat. 4, 714,614) and Supa Crop (1990) are cited herein for the same reasons as above and the are incorporated herein to avoid repetition.

The difference between the prior art and claimed invention is that the said prior art does not expressly disclose the combination of an EDDHA metal chelate, phosphonate/phosphite and phosphate. However, the prior art amply suggests the same as it is known in the art to combine phosphates, phosphates and metal chelates. As such it would have been well within the skill of

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and one of ordinary skill in the art would have been motivated to modify the claims said patent with the expectation that the combination would exhibit increased effectiveness.

Examiner has duly considered Applicant's arguments but deems them unpersuasive for the same reasons as above. Horriere et al. is recited to show that one of ordinary skill in the art would combine phosphonates and other fungicides. As such, to that extent Horriere et al. is relevant to the rejection of the claimed invention.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion

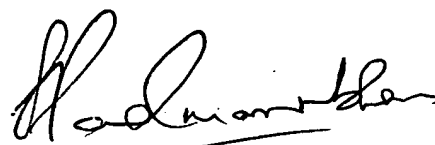
A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. Examiner maintains a compressed schedule and may be reached Monday, Tuesday, Thursday, Friday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Dr. Johann Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank Choi
Patent Examiner
Technology Center 1600
January 8, 2007



SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER

1/8/07